

Wildfire smoke becoming a serious health hazard

Wendy Koch, USA TODAY 11:07 a.m. EDT October 25, 2013

Study: Two-thirds of Americans lived in areas with smoky air in 2011 as wildfire risks spread hundreds of miles downwind from burning acreage.



(Photo: LM Otero, AP)

STORY HIGHLIGHTS

Wildfire smoke causing respiratory issues in areas beyond those burned

Such smoke can cause asthma attacks and worsen heart and lung diseases

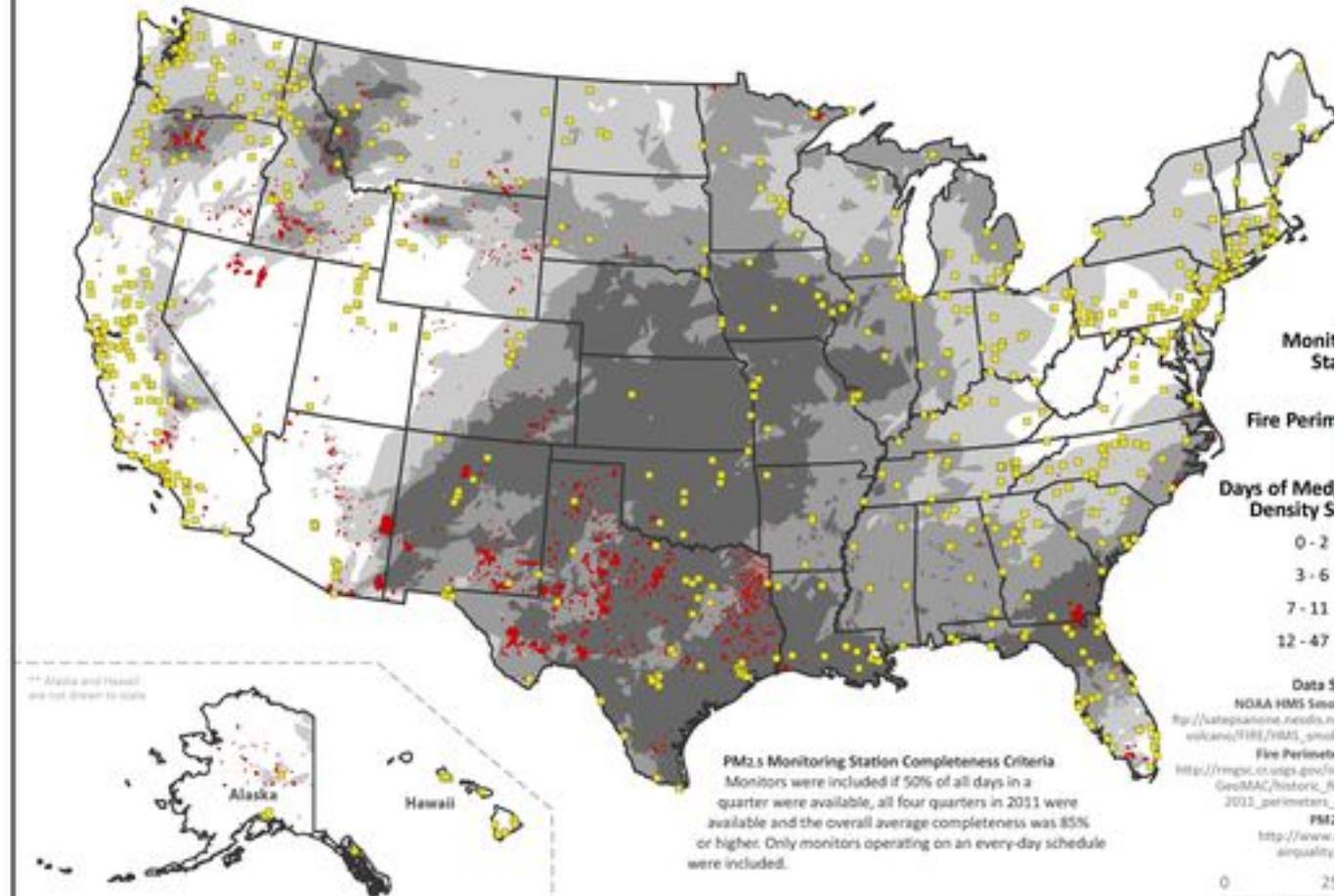
Climate change's rising temperatures expected to intensify wildfires

Climate change will intensify U.S. wildfires, and the smoky air will cause respiratory problems in areas far beyond those burned, reports an environmental group Thursday that listed how each state fared in 2011.

Two-thirds of Americans, or nearly 212 million, lived in counties beset by wildfire smoke two years ago, according to the analysis by the Natural Resources Defense Council. There were nearly 50 times more square miles that had medium to high-density smoke lasting at least 12 days than were burned by fire.

"It affects a much wider area of the United States than people realize," says author Kim Knowlton, an NRDC senior scientist and Columbia University health professor, adding the smoke can drift up to hundreds of miles. She says the smoke contains fine-particle air pollution and can not only cause asthma attacks and pneumonia but also worsen chronic heart and lung diseases.

U.S. Wildfires and Smoke, 2011



Two-thirds of Americans lived in areas that had medium to high-intensity smoke from wildfires for at least a week in 2011, as shown by the medium and dark gray areas, according to an analysis released Oct. 24, 2013 by the Natural Resources Defense Council, an environmental group. (Photo: Natural Resources Defense Council)

Texas was hit hardest in 2011, when medium to high-density smoke lingered at least a week in areas that are home to 25 million people, according to the analysis based on smoke data from federal weather satellites. Knowlton says most of the smoke came from wildfires, but the data don't tease out which ones were intentional for forest management.

Illinois, which recorded no wildfires within its borders, ranked second with nearly 12 million residents affected by smoke that drifted in from elsewhere. The other eight states

with the most residents exposed to smoky air were, in descending order: Florida, Missouri, Georgia, Louisiana, Michigan, Alabama, Oklahoma and Iowa.

Nearly two dozen, or 22, states had no wildfires within their borders in 2011, but eight of them still had at least one week of medium to high-intensity smoky air: Illinois, Missouri, Iowa, Kansas, Nebraska, Indiana, Wisconsin and Ohio.

Only 18 states and the District of Columbia had no residents exposed to at least a week of smoke that year, although five of them -- Alaska, California, Hawaii, Nevada and Utah -- had acreage burn from wildfires.

The problem will only get worse, Knowlton says, citing scientific research that shows human-induced climate change is causing higher temperatures and, in some areas, more drought.

"Our landscapes are becoming more of a tinderbox," she says. During 2011, the most recent year for which NRDC could get extensive government data, heat waves and drought made many areas vulnerable to wildfire. That year, 8.7 million acres burned nationwide -- the fourth highest since 1985, according to the National Interagency Fire Center, a federal agency. Even more acres, 9.3 million, burned last year.

"Heat waves are very likely to occur more frequently and last longer," Thomas Stocker, co-chair of the Intergovernmental Panel on Climate Change's Working Group 1, said last month in announcing the findings of the Fifth Assessment Report. He said the panel, created by the United Nations, generally expects to see "currently wet regions receiving more rainfall, and dry regions receiving less."

The nation's Western forests will be "increasingly affected by large and intense fires that occur more frequently,"

concludes the draft of the third National Climate Assessment, compiled by hundreds of scientists and released earlier this year. That report says eastern forests are less likely to see immediate increases in wildfires, except if unusual conditions coalesce such as those that have occurred recently in Florida.

The health impacts can be dire. The 2003 wildfire season in southern California resulted in 69 premature deaths, 778 hospitalizations, 1,431 emergency room visits and 47,605 outpatient visits, according to a study led by Ralph Delfino of the University of California, Irvine.

The NRDC report says that while more states are trying to warn residents of the health risks posed by wildfires, more monitoring stations are needed. If air quality reports are poor or it looks smoky outside, the group recommends people stay indoors, keep windows closed and avoid using fireplaces or other items that create smoke.